

5 What is claimed is:

1. A method of remotely adjusting at least one operating parameter of a computer-controlled image capturing system, the method comprising:

10 (a) providing a remote user terminal coupled to the image capturing system via a transmission medium;

(b) determining a parameter range for the operating parameter;

(c) dividing the parameter range into a plurality of parameter points;

(d) causing the image capturing system to generate an image at each of the plurality of parameter points;

15 (e) transmitting the generated images from the image capturing system to the remote user terminal via the transmission medium;

(f) displaying the generated images at the remote user terminal;

(g) utilizing the remote user terminal to select a best image from the generated images;

20 (h) communicating the identity of the selected best image from the remote user terminal to the image capturing system, the identity of the selected best image causing the image capturing system to determine an updated parameter range;

(i) dividing the updated parameter range into a plurality of updated parameter points that includes the parameter point associated with the selected best image; and

25 (j) iteratively repeating steps (c)-(i) until a final best image is selected.

2. A method as in claim 1, and wherein the at least one operating parameter is a single operating parameter.

30 3. A method as in claim 1, and wherein the at least one operating parameter is a plurality of operating parameters.

4. A method as in claim 1, and wherein the generated images are displayed as a one-dimensional array.

- 5 5. A method as in claim 1, and wherein the generated images are displayed as a two-dimensional array.
6. A method as in claim 1, and wherein the generated images are moving images having periodic motion, the periodic motion being represented as a loop of animation.
- 10 7. A method as in claim 6, and wherein the moving images are captured as a short burst of video.
8. A method as in claim 6, and wherein the moving images are captured as a sequence of still images.
- 15 9. A method as in claim 1, and wherein the image capturing system is an scanning electron microscope (SEM) system.
- 20 10. A method of adjusting at least one operating parameter of a computer-controlled image capturing system, the method comprising:
- (a) determining a parameter range for the operating parameter;
  - (b) dividing the parameter range into a plurality of parameter points;
  - (c) causing the image capturing system to generate an image at each of the plurality of parameter points;
  - 25 (d) displaying the generated images;
  - (e) selecting a best image from the displayed generated images, selection of the best image causing the image capturing system to determine an updated parameter range;
  - (f) dividing the updated parameter range into a plurality of updated parameter points that
  - 30 includes the parameter point associated with the selected best image; and
  - (g) iteratively repeating steps (b) – (f) until a final best image is selected.